

Foreword



National
Oceanic and
Atmospheric
Administration



U.S.
DEPARTMENT
OF
COMMERCE

NOAA Fisheries Service Northeast Cooperative Research Partners Program

The National Marine Fisheries Service (NOAA Fisheries Service), Northeast Cooperative Research Partners Program (NCRPP) was initiated in 1999. The goals of this program are to enhance the data upon which fishery management decisions are made as well as to improve communication and collaboration among commercial fishery participants, scientists and fishery managers. NOAA Fisheries Service works in close collaboration with the New England Fishery Management Council's Research Steering Committee to set research priorities to meet management information needs.

Fishery management is, by nature, a multiple year endeavor which requires a time series of fishery dependent and independent information. Additionally, there are needs for immediate short-term biological, oceanographic, social, economic and habitat information to help resolve fishery management issues. Thus, the program established two avenues to pursue cooperative research through longer and short-term projects. First, short-term research projects are funded annually through competitive contracts. Second, three longer-term collaborative research projects were developed. These projects include: 1) a pilot study fleet (fishery dependent data); 2) a pilot industry based survey (fishery independent data); and 3) groundfish tagging (stock structure, movements and mixing, and biological data).

First, a number of short-term research projects have been developed to work primarily on commercial fishing gear modifications, improve selectivity of catch on directed species, reduce bycatch, and study habitat reactions to mobile and fixed fishing gear.

Second, two cooperative research fleets have been established to collect detailed fishery dependent and independent information from commercial fishing vessels. The original concept, developed by the Canadians, referred to these as "sentinel fleets". In the New England groundfish setting it is more appropriate to consider two industry research fleets. A pilot industry-based survey fleet (fishery independent) and a pilot commercial study fleet (fishery dependent) have been developed.

Additionally, extensive tagging programs are being conducted on a number of groundfish species to collect information on migrations and movements of fish, identify localized or subregional stocks, and collect biological and demographic information on these species.

For further information on the Cooperative Research Partners Programs please contact:

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Abstract

The purpose of this study was to monitor the exempted small-mesh raised-footrope trawl (RFT) fishery using data collected by sea samplers, and to improve adoption of the sweepless RFT (SRFT) through net modification at sea and production of a video. Eighteen trips were conducted from September 13 – December 19, 2002; 7 trips in which the standard whiting RFT or a raised footrope Scottish seine were used and eight trips in which the SRFT design was used. Three trips were conducted in which nets were modified at-sea from a standard RFT to the SRFT (changeovers). Biological data (catch composition, catch and discard rates, and length frequencies of whiting and regulated groundfish species) were collected during sea-sampling as part of short and long-term monitoring. Monitoring of the fishery resulted in redirection of effort away from cod concentrations, and more uniform bycatch regulations. Efforts to improve adoption through outreach were successful. Changeover trips helped convince two of three fishermen to use the sweepless RFT. An edited video distributed to all fishery participants received positive feedback. Also, net mensuration data showed that the sweepless net appeared stable during fishing, although more measurements under varying towing conditions would be helpful to achieve optimum performance of this design. Separate analysis of catch data verified low bycatch with all three gears observed, although data were limited and non-random and should be interpreted with caution. Additionally, catches of vessels that underwent net modifications (changeovers) appeared to perform comparably to vessels that fished the standard RFT and sweepless RFT, although adjustments in the form of headrope extensions were required.

Overall, results from this study support the SRFT as a viable option to the RFT. These preliminary results suggest that both designs can benefit the rebuilding of groundfish stocks while sustaining small-mesh trawl fisheries. It is recommended that further research and monitoring of these two gear types be conducted to further improve these designs and continue to verify low overall bycatch levels.